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Knowing and Using Eggs

Prepared by

Osee Hughes
Instructor in Foods and Nutrition, School of Home Economics

and

Raymond E. Cray
Specialist in Poultry Husbandry, The Ohio State University

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Knowing and Using Eggs

"How can I tell a good egg before I buy it?" is a question that thousands of housewives would like to have answered.

Practically all eggs are of fine quality when they are laid. But most markets do not pay a premium for fine eggs, and little effort is made by most producers or dealers to retain the original quality of eggs. Consumers could, perhaps, change this attitude on the part of the egg producers and dealers by demanding high quality eggs. But, how can the consumer know a good egg?

The qualities that determine the suitability of an egg for table use may be considered in three groups:

1. Those that determine the interior condition of the egg. These qualities can be observed by candling the egg, or by breaking it into a dish.

2. Those conditions that determine the exterior characteristics of an egg. Almost all eggs are clean when laid, and, to retain the original quality of the eggs, they should remain clean until used. The shell should be clean, strong, and free from cracks or checks. The color of the shell has nothing to do with the quality or flavor of the egg.

3. Weight should be considered in buying eggs. Some eggs weigh only 20 ounces a dozen and other eggs 26 or more ounces a dozen. Why should the consumer pay the same for 20 ounces of eggs as for 26 ounces? There is no reason for such a practice. However, a dozen eggs has been a dozen eggs for so long that weight is not generally recognized in connection with egg sales.

The Interior of an Egg

What is an egg candling device? What should one look for when candling eggs—that is, what are the visible differences between good and bad eggs?

Seeing an Egg Before a Candle.—An egg candling device consists of a light within a can or other covering with a round hole about 1¼ inches in diameter between the light and the observer.

When placing an egg over the hole for observation, the candler should take it by the small end and give it one or two quick turns on the long axis. This action moves the cotents of the egg and throws the yolk nearer the shell, making its condition more easily examined. The egg should be held in a slanting position with the large end up, and completely covering the hole through which the light passes. The egg must be turned so that all sides are exposed to the candler, otherwise an undesirable condition in the egg might easily be missed.

The first thing to observe is the air cell. When an egg is laid, the shell is full. As the egg cools, the contents contract in the shell and the shell membrane separates from the egg membrane at the large end of the egg, forming what is commonly called the air cell. In an egg of the best quality and freshness, this air cell should not be more than ⅛ inch in depth. It should occupy a fixed position in the egg and not appear tremulous. The shell of an egg is

porous, and the water in the egg slowly evaporates if it is stored in a warm dry place. A large air cell is, therefore, an indication of staleness, or that the egg has not been stored in a cool, moist atmosphere.

The yolk of a fine quality egg should be only dimly visible as a shadow when the egg is turned before the light. If the egg has been kept for some time in a warm room, "heat spots" will have developed in the yolk, which will give the yolk shadow a reddish cast. Clear visibility of the yolk, a reddish cast, and a free or rapid movement of the yolk, are all associated with low quality of egg.

In a fresh egg, the germ (or hatch spot) should not be visible. The development of the germ starts at a temperature of 68° F., and if a fertile egg is stored at this temperature or above, blood rings will develop around the germ in a few days. Such an egg should not be considered a fresh egg.

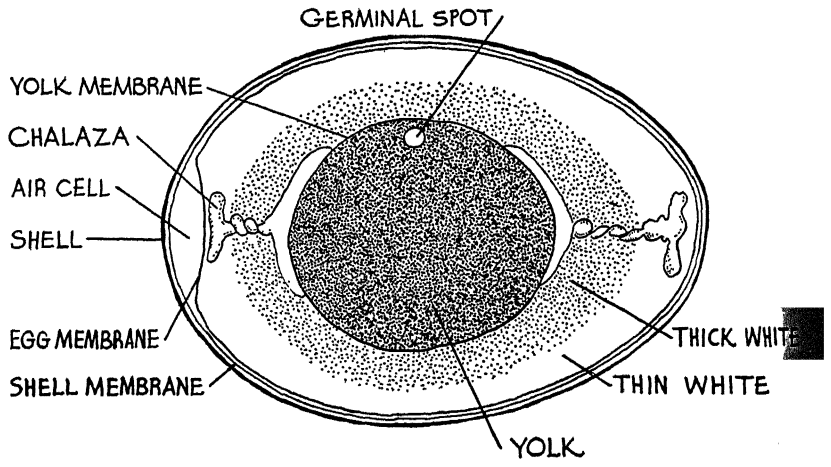


Fig. 1.—The structure of an egg.

The presence of blood clots, of meat spots, or of any other foreign matter make eggs undesirable, if not unfit for table use. If the white appears pink, bloody, or green the egg is not fit for table use. Such conditions are readily detected when eggs are candled.

Candling devices are not in common use, then how can one learn what a good egg is like without an egg candler?

Seeing an Egg Broken into a Dish.—Break the egg into a flat-bottom white dish or plate. The white is composed of a thick and thin portion. The thick white surrounds the yolk and keeps it from flattening out in a good egg. A thin, spreading, watery white indicates staleness. However, eggs may have thin whites when laid, especially if the hens eat large quantities of succulent green feed. Producers of high quality eggs are extremely careful during the spring months to limit the amount of succulent green feed their hens eat. Some poultrymen keep their laying hens housed throughout the year.

The yolk of an egg of fine quality should be spherical, firm, and of a uniform color throughout. The actual color may vary from a light lemon yellow to a reddish orange, depending largely on the egg production and on the food of the hen. The yolk also contains a small spot called the germ disc. This disc is on all egg yolks, whether they are fertile or infertile.

If the yolk sticks to the shell of the egg, it is not considered an edible egg. If the yolk flattens out in the dish or breaks, it may be edible but of poor quality. If molds or a bad odor are present, the egg is not fit for table use.

An Egg in Water Talks.—A fairly accurate method of learning the amount of evaporation in eggs is to place them in a dish of water. A fresh egg or an egg that has a very small air cell will lie nearly flat on the bottom of the dish. If the egg is slightly evaporated, the large end of the egg bearing the air cell will tip up. This tendency of the large end to tip up increases with the degree of evaporation. A badly evaporated egg or an egg with a very large air cell will float on the surface of the water. This is a method that the consumer may use to determine the size of the air cell or the degree of evaporation. The method indicates age or conditions under which the egg has been kept, but it does not give any clue to the interior quality of the egg.

Preserving Eggs in Water Glass

Some housewives are interested in buying eggs during the spring, when they are cheap, and keeping them for use through the year.

Various methods of preserving eggs for household use are employed. The water glass method is the most popular. Consumers can make use of this method of preservation to keep a supply of cheap eggs over from the summer for use in the fall, so that the consumption of eggs is normal throughout the entire year regardless of seasonal fluctuation in price. Only fresh eggs of the very best quality, preferably infertile ones, clean and sound in shell, should be preserved in water glass.

The water glass solution is prepared by using one part of water glass to nine parts of cool boiled water. Put the solution in open jars and place the eggs in the solution as soon as possible after gathering. The eggs should be put in the jars with the large end up. Be sure that at least 2 inches of the solution is above the top layer of eggs. Eggs can be kept in such a solution for several months, if stored in a cool place.

If these eggs are to be cooked in the shell, prick the air cells with a needle just before cooking to prevent the egg shells cracking.

The Truth About Cold Storage Eggs

The uneven seasonal production of eggs, with an over-supply during the spring months and a corresponding scarcity during the fall and winter, is equalized by modern marketing methods, which includes cold storage. Part of the spring eggs go through the usual channels into immediate consumption, while the rest are packed into new cases, fillers, and flats and placed in cold storage, where they are held until fall and winter, when there is a shortage of fresh eggs. Without cold storage, eggs in many localities would not be worth

enough during the spring to justify gathering them. In the fall, the supply would be far from sufficient to meet the demand and the price would be so high that eggs would be eliminated as a part of the diet of most consumers.

It is true that there is some popular prejudice against the use of storage eggs, and this is not entirely without justification. This prejudice against cold storage eggs has grown up from several different causes.

1. Many consumers remember the early experiences with cold storage eggs. Refrigeration methods were in the elementary stages and storage dealers had not learned that it was necessary to put high quality eggs into storage.

2. Some dealers have practiced the fraud of selling very low quality cold storage eggs as fresh eggs.

3. Some dealers have sold stale and badly deteriorated eggs at a reduced price as cold storage eggs.

A cold storage egg is just like any other egg — sometimes better, sometimes worse than the so-called fresh egg, depending on the quality of the egg put in storage, the condition of that storage, and the care given the egg after it leaves cold storage.

Eggs of fine quality placed in cold storage rooms which are amply supplied with moisture and held at the proper temperature, show very little deterioration over a period of six months.

Eggs as Food

Assuming that we are supplied with good eggs, or can secure them, how do they compare with other foods, and how can they be used to best advantage?

Eggs can be used in more ways than most other foods. And, considering their high nutritive value, they should hold an important place in our diet. In the most approved practices in child feeding, one egg yolk is given daily to infants over 6 months, and one whole egg to children over 2 years of age. Also, there is a tendency toward including an egg a day, or at least three or four a week, in the diet of adults.

An average egg is equal in energy value to a scant half cup of milk, to 1¾ ounces of lean round steak, or to a ⅞-inch cube of American cheese.

Protein of Eggs.—The white of eggs is almost pure protein and water, but an egg yolk is even richer in protein. This is partly due to the fact that egg yolk contains much less water than egg white. However, the nature of this protein is of more importance than the amount. Egg proteins are complete proteins — that is, they furnish all the "building stones" needed for growth. When used with proteins of lower value, such as those of cereals, they supply the "building stones" that cereal proteins lack, thus making cereals more valuable than when used alone.

Mrs. Mary Swartz Rose, in "The Foundations of Nutrition," says: "Next to milk, eggs are the most important protein bearing food in the diet of the growing child."

Minerals of Egg.—The minerals of an egg are found mainly in the yolk. It is a fairly good source of calcium and is rich in phosphorus and iron.

iron. The quantity of iron in egg yolk compares very favorably with that in other foods regarded as significant sources of iron. For example, one egg yolk is about equal in quantity of iron to ½ cup fresh peas, 2 small potatoes, ⅛ pound lean beef, 1/6 cup cooked spinach, 1 shredded wheat biscuit, or ¼ cup rolled oats (raw).

Due to the high sulfur content of eggs, there is an excess of the acid-forming over the base-forming elements in them. In this respect eggs are like meat and unlike milk. If one eats many eggs then one should also eat plenty of fruits and vegetables to counteract the effect of the high sulfur content of the eggs.

Vitamins of Eggs.—From the standpoint of vitamin content, it is again the yolk of the egg which is most valuable. The yolk is rich in vitamins A, B, and G. Dr. A. F. Hess found that it contains sufficient vitamin D to protect infants from rickets during the latter part of winter when one egg yolk a day is fed. With the exception of certain fish oils, egg yolk is our most important natural food source of vitamin D. Egg yolk has no vitamin C. Recent literature reports that the white is richer than the yolk in vitamin G. For further general information on vitamins see Ohio State University Agricultural Extension bulletin 54, by Lyman and Powell.

Digestibiluty of Eggs.—Henry C. Sherman in his book on "Food Products" says experimental evidence indicates that egg protein is digested and absorbed in the body to about the same extent as protein of meat and milk, and that egg fat is digested about as thoroughly as milk fat, and rather more thoroughly than meat fat. Also, he says that "eggs soft cooked at a temperature below that of boiling water are most readily and rapidly digested, but the ultimate thoroughness of digestion does not seem to be greatly influenced by the method of cooking."

Rose and MacLeod have shown that raw egg whites are better utilized by the human body if beaten light rather than taken "clear," but are not quite so well utilized as cooked whites. Hard cooked eggs require thorough mastication. Raw egg yolk is as well utilized as cooked yolk.

Uses for Eggs in Cookery

Eggs alone are used in many ways as food. They are also used in numerous foods to improve the texture, as well as to add flavor and color to those foods.

Thus, sponge cake, omelets, and soufflés are made possible because of the air that can be beaten into the eggs that go into those dishes. The desirable consistency of custards, cooked salad dressings, and many sauces and puddings is due largely to the coagulation of the eggs that form a part of them. Then too, the smooth, desired consistency of mayonnaise dressing, Hollandaise sauce, and various batters is made possible by the ability of eggs, especially egg yolk, to form an emulsion with other materials.

The coagulating property of egg makes it valuable for clarifying soup stocks and coffee. As the egg coagulates, fine particles which are the cause of cloudiness, adhere to the egg. The coagulating property of egg is also re-

sponsible for the use of egg as a binder in such foods as croquettes, meat loaf, and other foods where it is desired to hold crumbs or other food particles together while being cooked.

Fundamental Principles of Egg Cookery

The fundamental principles of egg cookery are simple, definite, and important. Disregard of these fundamentals can easily lead to failure to obtain the most pleasing and palatable products. A few of the well known facts in regard to egg cookery follow.

Coagulation of Eggs.—Egg yolk and egg white both coagulate when heated and can be used for thickening. They function better for thickening if beaten only slightly.

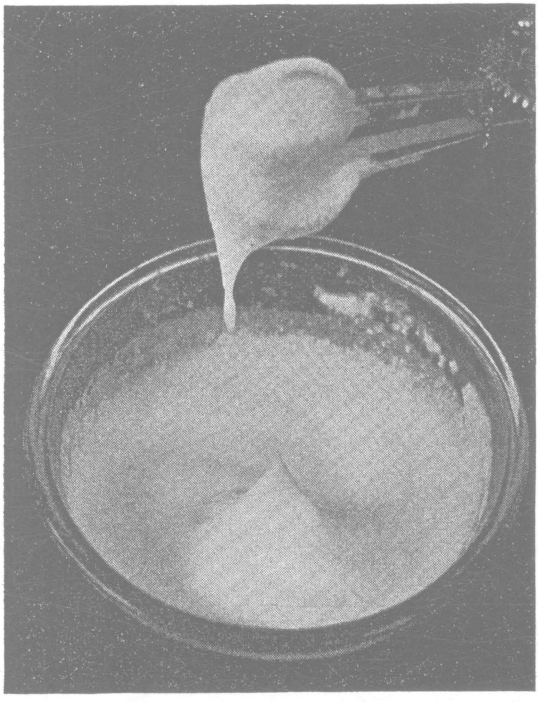


Fig. 2.—The desirable stiffness for beaten egg whites.

The temperature at which egg coagulates and the time required for coagulation depend largely on the proportion of egg in any mixture. Undiluted egg completely coagulates at about 158° F., a temperature far below the boiling point of water. Diluted egg must be heated to a somewhat higher temperature than undiluted egg, but the coagulation temperature in no case approaches the temperature of boiling water. Egg yolk requires a slightly higher temperature for complete coagulation than does egg white. (167° F.)

The use of low or moderate temperatures for egg cookery is very important if tenderness, good texture, and maximum volume are to be attained.

The rate of heating affects the coagulation temperature of egg or egg mixtures. If, for example, a soft custard mixture is heated very rapidly over boiling water, the mixture will coagulate at a higher temperature than if heated slowly.

The fact that the coagulation temperature with rapid heating is very close to the curdling temperature means that a rapidly cooked custard is much more likely to curdle than one heated slowly. A slowly heated custard can, nevertheless, curdle if heated to too high a temperature.

Increasing the sugar in egg mixtures, such as custards, raises the coagulation temperature of the mixture, but it is not directly a cause of curdling, as many people believe. Slight acidity aids the coagulation of egg. Firmer custards result from the addition of slightly acid fruits such as dates or figs. Too great acidity, however, results in curdling of custard mixtures.

Beating of Egg.—Since beaten egg whites are used for so many cookery operations, the proper beating of egg whites becomes a very important matter.

The whipping quality of eggs may be affected by uncontrollable factors such as season. Eggs produced in April and September apparently whip to larger volume than midsummer eggs. However, many factors affecting the whipping of eggs are subject to human control. Cold eggs do not whip so quickly or to so large volume as eggs at approximately room temperature. Watery egg whites whip to larger volume than very thick egg whites. Old eggs or storage eggs have more watery whites than new-laid eggs, although the latter vary somewhat in firmness of whites. Fresh thick egg whites may be diluted with water to yield larger volume.

The type of egg beater used, as well as the fineness of the wires or blades of the beater, affect the size of air cells obtained and the ease with which fine cells are obtained. Thick wires or blades do not divide egg whites as easily as fine wires and the resulting air cells are therefore larger, although all cells will become smaller with longer beating, regardless of type of beater. Egg whisks sometimes give a larger volume than rotary types of beaters, but the cells are also larger.

Overbeating of eggs appears to be a common practice. Beaten egg whites should not have a dry, lumpy appearance, but should retain a shiny, smooth surface. The following tests may be of assistance in determining the proper stiffness of beaten egg whites.

1. The mass should flow *very slowly* if the bowl is partially inverted.
2. As the egg beater is withdrawn from the mass, "tails" or peaks should form.
3. Air cells should be as fine and of as even size as can be obtained without beating to the dry state.

Overbeaten egg whites are sufficiently coagulated during the beating process to cause the cell walls to break rather than stretch as expansion of air occurs during cooking. As cells break, air is lost, resulting in smaller volume of the cooked product. Since the desire to attain large volume and a light spongy quality are the chief reasons for adding air to egg whites, it is obvious that one should learn to judge the degree of beating which will accomplish one's purpose.

Whole eggs can be beaten much stiffer than the average person thinks if beating is continued for a long enough time. Due to the presence of the fat of the yolk there is little danger of overbeating it, as the high fat content of the yolk decreases the viscosity of the white and makes impossible the incorporation of as much air as egg whites alone will hold.

RECIPES FOR EGG COOKERY

Table of Abbreviations

t = teaspoon
T = tablespoon
c = cup

All measures are level

Simple Egg Preparations

Soft-Cooked Eggs (in the shell)

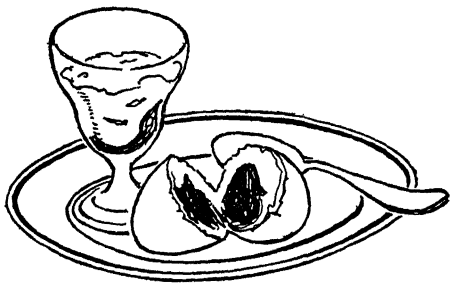


Fig. 3.—Soft cooked egg.

Allow 1 pint of water for each egg. Bring water to a boil, add eggs, and turn out fire or remove pan from hot part of stove. Cover and allow to stand from four to six minutes, depending on the degree of softness desired.

Ideal soft-cooked eggs have the white which is jelly-like or firm (but tender). The yolk should be liquid or semi-liquid.

Hard-cooked Eggs

Method 1.—Heat water in the top of a double boiler over the flame until it bubbles slightly. Add the eggs. Place top of double boiler over the water; the water in the lower part should not boil, but may simmer. Cover and cook eggs for about 45 minutes. Plunge eggs into cold water to facilitate peeling and to prevent the formation of the green deposit which sometimes appears on the yolks of hard-cooked eggs.

Method 2.—Follow directions for soft-cooked eggs and allow to stand in warm place 45 minutes to 1 hour. Plunge eggs into cold water.

Hard-cooked eggs should have a firmly coagulated, but very tender white. The yolks should be dry and mealy. If waxy, the yolk is not sufficiently cooked.

Scrambled Eggs (about 3 servings)

4 eggs	½ t. salt	4 t. butter
4 T. milk or water	1/16 t. pepper	

Beat eggs. Add seasoning and liquids. Melt butter in frying pan or top of double boiler. Add eggs and cook slowly until coagulated, stirring occasionally. If double boiler is used, do not allow water in bottom to boil. A double boiler is especially desirable when a larger quantity of scrambled eggs is being prepared.

Poached Eggs

Break egg in a saucer. Place enough water in a shallow pan to cover the eggs to be poached. Eggs poached in milk or cream should have the dish suspended over hot water.

Heat water or milk almost to boiling point. Place dish containing egg close to surface of water or milk, and slip egg quickly into it. Reduce flame or place pan where the water will not boil. Allow to stand until the white is of jelly-like consistency (about four to six minutes).

While salt aids in coagulation, eggs poached in salted water are usually not so shiny as when poached in unsalted water. They may also appear puckered or ruffled as they do when cooked in boiling water. Inexpensive metal rings may be used to keep the eggs from spreading (see below).

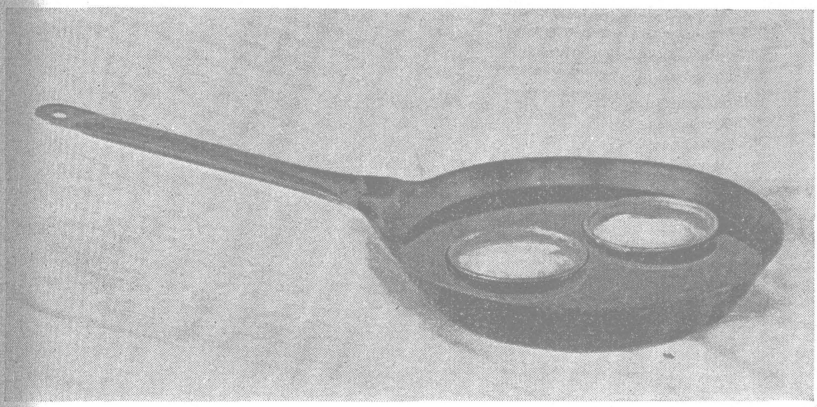


Fig. 4.—One method of poaching eggs.

The finished product should have a rounded appearance and a film of coagulated white should cover the yolk. The yolk should be liquid or semi-liquid and the white completely coagulated but jelly-like and tender.

Fried Eggs

Use only enough fat to prevent the eggs from sticking to pan. Heat the pan moderately hot. Break each egg into a saucer and place it in the pan. Cover and cook slowly until the egg white is set. A small amount of water may be added to pan before covering. The steam formed aids in cooking the tops of the eggs and tends to prevent undue toughening or hardening of edges. Excess fat used in frying usually results in a greasy, unappetizing product. Because of the difficulty in controlling temperature of the pan and of the fat, a fried egg is more often tough than tender and for that reason may be among the least desirable of egg preparations.

The underside of a fried egg should not be brown and the edges should not be crisp or frilled.

Plain Omelet

Fig. 5.—Fold the omelet before removing from pan.

Use scrambled egg mixture. Cook in frying pan in which butter has been melted, but do not stir while cooking. A spatula may be run under the coagulating omelet occasionally. By lifting the mass the thin egg mixture flows underneath and reaches the heat of the pan.

When completely coagulated fold over and place on hot platter.

For variety, chopped cooked ham or bacon, or jelly, may be spread on omelet before folding.

Recipes Based on Egg as Thickener

Baked Custard (4 to 5 custards)

2 to 3 eggs or
5 to 6 yolks
1 pint milk
⅛ t. salt
4 to 6 T. sugar
½ t. vanilla or
⅛ t. nutmeg

Beat eggs or yolks only enough to blend well. Milk may be scalded in top of double boiler. Add sugar, salt and flavoring to egg; add milk to egg mixture, and stir until well blended, then strain. Pour into custard cups. Place cups in pan of hot water and bake in slow oven until firm.

Test—Insert blade of paring knife in center of custard. If it comes out clean the custard is done.

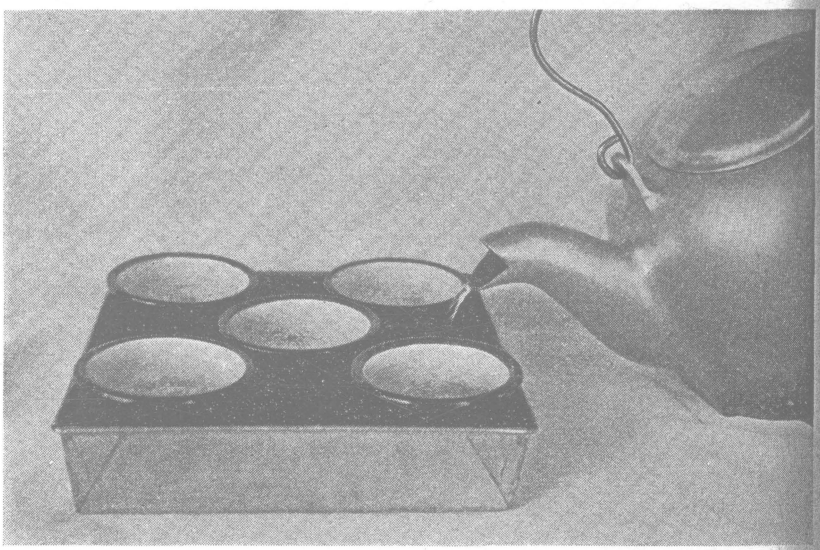


Fig. 6.—Adding hot water to the pan in which baked custard is to be cooked.

Soft Custard

eggs or 3 to 5 yolks	⅛ t. salt
pint milk	½ t. vanilla or
to 6 T. sugar	⅛ t. nutmeg

Beat eggs or yolks just enough to blend well. Add sugar and salt to eggs. Scald milk in top of double boiler, and add to egg mixture. Strain back into top of double boiler. Adjust heat so that water in bottom of double boiler is just below boiling point.

Stir custard constantly while heating slowly until mixture coats the spoon. Remove pan containing custard at once from hot water and place in cold water to stop cooking, or pour custard into cool dish. Add the flavoring desired.

Fig. 7.—Spoon coating test shows when a soft custard is coagulated.

Soft custards may vary in thickness, depending on the use, but they always have a pouring consistency because they are stirred during the coagulation process. The amount of egg determines the thickness.

Caution—Overcooking of a soft custard results in curdling. As soon as the custard coats the spoon well it is done regardless of apparent thickness. The custard will be thicker when cold.

Cooked Salad Dressing (1 pint or more when diluted)

(To be thinned with buttermilk, cream, or whipped cream just before using)

1 t. salt	4 T. flour	¼ c. vinegar
1 t. mustard	¼ t. paprika	1¼ c. water
4 T. sugar	2 eggs	

Mix dry ingredients. Add vinegar and water and stir until smooth. Beat eggs slightly in top of double boiler. Add the other ingredients and cook over hot water until thick. Store in covered jar.

Cream Salad Dressing (1 pint)

1 t. salt	4 T. flour	1½ c. sweet or sour cream
1 t. mustard	¼ t. paprika	¼ c. vinegar diluted with ¼ c. water
4 T. sugar	2 eggs	

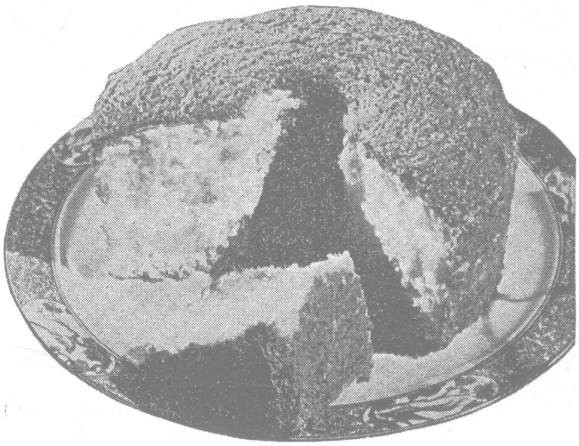
Sift dry ingredients. Add cream and stir until mixture is smooth. Beat eggs slightly in top of double boiler. Add cream mixture and when well blended add vinegar and water. Cook over hot water until thick.

Caution—In using sour cream be sure the cream is fresh enough to have good flavor.

ANGEL FOOD CAKE

1 c. egg whites (have eggs at room temperature)	2 T. cold water	1¼ c. granulated sugar
	1 t. cream of tartar	1 c. pastry flour
	¼ t. salt	1 t. flavoring

Assemble ingredients and sift flour once before measuring. Do not oil the baking pan. Bottom of pan may be lined with oiled paper cut to fit. Place egg whites in bowl in which mixing is to be done. Beat egg whites about 20 revolutions with a rotary egg beater. Add water and sift mixed salt and cream of tartar over surface of egg whites. Continue beating until egg whites are stiff but not dry (see page 9). Sift the sugar, about 2 tablespoons at a time, over surface of egg whites and fold in gently with a spatula or metal spoon. Use a total of about 60 strokes for folding in the sugar. Repeat with flour, using a total of about 90 strokes for folding in flour. Add the flavoring while folding in the last of the flour. Pour into cake pan and bake 1 hour or slightly longer in a slow oven (250°–300° F.).



Courtesy General Foods Corp., N. Y.

Fig. 8.—A well made angel food cake.

SPONGE CAKE

1 c. sugar	2 T. water	½ to 1 T. grated lemon rind
1 c. pastry flour	6 eggs	⅛ t. salt
1 T. lemon juice		

Add lemon juice, lemon rind, water, and salt to the sugar. Stir until well mixed, then add the unbeaten egg yolks and beat until light as possible. Add the flour, carefully folding in a small amount at a time. Beat the egg whites until stiff but not dry (see page 9 on beating egg whites). Carefully fold beaten whites into yolk mixture, using a spatula or thin metal spoon. Pour into greased pan and bake about an hour in a slow oven (250° or 300° F.).

There are several successful methods for combining sponge cake. The method given produces fairly uniform results.

Cheese Souffle

3 to 4 T. butter	1/16 t. pepper	½ to 1 c. grated cheese (depending on whether strong or mild cheese is used)
3 to 4 T. flour	3 eggs	
1 c. milk		
½ t. salt		

Using a double boiler, make thick white sauce from butter, flour, milk, salt, and pepper. Separate yolks from whites of eggs. Add cheese to white sauce and stir until cheese is melted. Remove from fire and add beaten yolks. Cool slightly, then fold in beaten egg whites and pour mixture into buttered baking dish. Place dish in pan of hot water and bake in slow or moderate oven (300° to 350° F.) until set (about 30 to 45 minutes).

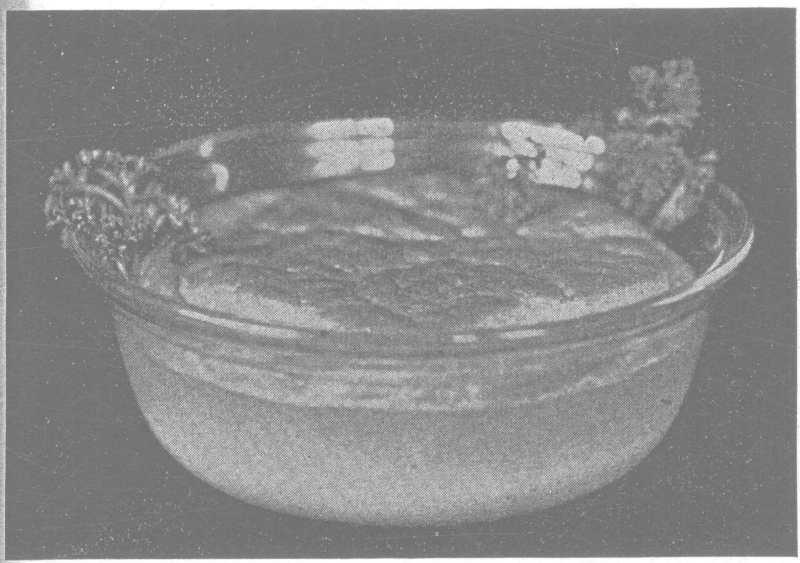


Fig. 9.—A cheese souffle ready for the table.

Variations:

Vegetable Soufflé—1 cup of vegetable pulp may be used instead of cheese. Peas, spinach and asparagus are especially good. About 1 teaspoon each of finely chopped parsley and onion juice adds zest to vegetable soufflés. 1 cup of finely chopped mixed vegetables (peas, asparagus, carrots, celery) may be used instead of pulp.

Meat Soufflé—Substitute meat or chicken broth for milk in making sauce. Use 1 cup finely ground meat or chicken instead of cheese. Add 1 teaspoon each of chopped parsley and onion juice.

Chocolate Soufflé—Omit pepper; decrease salt to ¼ teaspoon. Omit cheese. Add to white sauce 1/3 cup sugar, ½ teaspoon vanilla, 2 ounces (squares) of bitter chocolate melted with 3 tablespoons hot water.

Foamy Omelet

4 eggs	½ t. salt	4 t. butter
2 to 4 T. water	1/16 t. pepper	

Separate yolks from whites of eggs. Add pepper to yolks and beat until light colored and foamy. Add water and salt to egg whites and beat until stiff but not dry. Using a spatula or thin metal spoon cut or fold the yolks into the whites, being careful to avoid loss of air. Melt fat in a fairly large heavy frying pan. Pour omelet mixture into pan and cook by one of the following methods:

1. Cover and cook over slow fire until omelet has risen and has coagulated. The steam held in by the lid cooks the top of the omelet.
2. Cook over slow fire until omelet is lightly browned on bottom and about three-fourths coagulated. It is possible to determine how far the omelet is coagulated by cutting gently into the mass with a spatula. Place omelet in oven or in broiler to finish cooking and dry the top.

Avoid overheating, as the omelet will fall and will be tough. Crease it through the center, fold it over with a spatula, and remove to hot platter. Serve at once.

Variations:

Jelly Omelet—Before folding omelet, spread with jelly, jam, or marmalade.

Vegetable Omelet—A mixture of hot, well buttered and seasoned vegetables may be added before folding omelet. This dish offers an opportunity for use of left-over vegetables.

Meat Omelet—Finely chopped meat such as ham or chicken may be added before folding omelet.

Fruit Whip (Uncooked)

1 egg white	¾ c. sugar for acid fruits
1 c. fruit pulp	or 1/3 to ½ c. sugar for non-acid fruits
1 T. lemon juice	
Few grains salt	

Place all ingredients in a bowl. Use unbeaten egg white. Using a rotary type of egg beater, beat mixture as stiff as possible. Serve in sherbet glasses or as a sauce for cake or shortcake with the extra fruit used.

Strawberries, raspberries, dried apricot pulp, greengage plums, and damson plums are especially good, but prunes, apples, bananas, and other fruit may be used.

Fig. 10.—Uncooked fruit whip

Fruit Whip (Cooked)

4 egg whites
¾ c. fruit pulp
4 T. sugar
2 T. lemon juice
⅛ t. salt

Beat egg whites until stiff but not dry. Fold in other ingredients. Pour into ungreased pan or pudding dish. Place dish in pan of hot water and bake in slow or moderate oven (300° to 350° F.) until egg is coagulated. The whip may be steamed instead of being baked. Serve with whipped cream or soft custard.

Dried fruits with distinctive flavor such as prunes or apricots are usually better for cooked whips than fresh fruits.

Meringue (for pies and puddings)

2 egg whites
2 T. sugar
Few grains salt

Add salt to egg whites and beat almost stiff. Add sugar and continue beating until sugar is blended. Spread unevenly on top of pie or pudding,

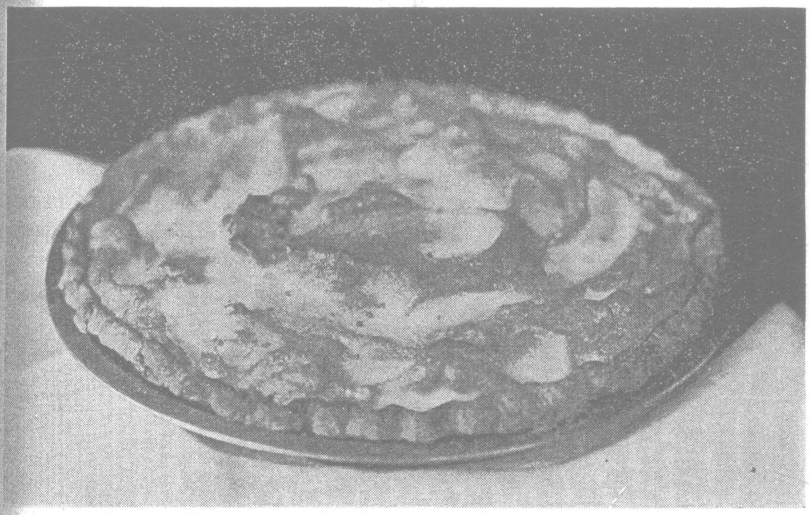


Fig. 11.—A well made meringue enhances the appearance and flavor of a pie.

being sure to cover entire surface. Bake in slow oven (300° F.) for 15 to 25 minutes. Using a broiler instead of a slow oven for browning meringue usually results in a tough, underdone product.

Meringue should be tender, coagulated throughout, and delicately browned on top. Tough meringue results from the use of too high a temperature or too long cooking.

A very large pie will require 3 egg whites and 3 tablespoons of sugar.

Egg as Emulsifier

Mayonnaise

(Have ingredients at about room temperature)

1 egg yolk	Few grains sugar	¼ t. mustard
1 T. vinegar	½ t. salt	About ¾ cup oil (use good food oil)
1 T. lemon juice	⅛ t. paprika	

Add seasonings, vinegar, and lemon juice to egg yolk. Mix well. Add 1 tablespoon oil and beat well with rotary type of egg beater. Add another tablespoon oil and continue beating thoroughly. Continue adding oil gradually, beating well after each addition of oil. As soon as mayonnaise begins to thicken slightly oil may be added 2 tablespoons at a time, but the mixture must be beaten well after each addition of oil. If the emulsion breaks or curdles while being made, it is likely that the mixture was not beaten thoroughly after the additions of oil, particularly the first ones. In case the emulsion breaks, start with another egg yolk or a tablespoon of water or vinegar. Gradually add the curdled mixture to it, beating well after each addition. Fresh eggs are superior to storage eggs for mayonnaise.

Miscellaneous Recipes for Eggs

Creamed Ham and Eggs

4 hard cooked eggs cut into large dice	1 to 1½ c. diced cooked ham	2 T. butter
		2 T. flour
½ t. salt	1/16 t. pepper	1 c. milk

Make white sauce of flour, butter, seasonings, and milk. Add eggs and ham. The mixture may be placed in open casserole, covered with buttered crumbs, and browned in moderate oven.

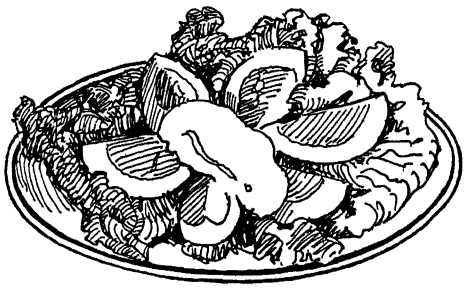


Fig. 12.—A simple egg salad.

Egg Salad

4 hard cooked eggs, diced	1 c. celery, diced	Enough mayonnaise or cooked dressing to blend with eggs and celery

Serve on lettuce cups. Any variation of stuffed egg makes an excellent salad. Place eggs on lettuce leaves. Add extra salad dressing if desired.

Ham and Egg Canape

Mix minced boiled ham with half as much stiff mayonnaise as ham. Slice sandwich bread ¼ inch thick. Remove crusts, toast one side, and spread untoasted side lightly with butter. Spread with ham mixture. Have enough finely chopped whites of hard cooked eggs to cover surface of flat plate. Run yolks of hard cooked eggs through wire strainer; spread on surface of another flat plate. Place ham covered slices of bread (ham down) in chopped whites of eggs then in yolks. Sprinkle salt over top, then very finely chopped parsley. Cut each slice into four canapes.

Stuffed Eggs

6 hard cooked eggs	¼ t. pepper	1 T. vinegar
½ t. salt	½ t. dry mustard	2 t. butter

Cut the hard cooked eggs in half lengthwise or crosswise, remove the yolks and mash them. Add butter and seasonings and stir until smooth. Refill whites. The eggs may be served cold or hot. If hot, they may be placed on toast and have one cup white sauce or onion sauce poured over them.

Variations:

Relish—Add 2 to 3 tablespoons finely chopped relish to yolk mixture.

Chicken, Shrimp or Ham—Add 3 tablespoons, minced, to yolk mixture. Add 1 teaspoon each of onion juice and finely chopped parsley.

Cheese—Add ½ cup grated to yolk mixture or sprinkled over top if white sauce is used.

Green Peppers, Cucumbers, or Celery—Add 2 to 3 tablespoons finely chopped to yolk mixture.

Egg Sandwiches

Use whole wheat or white bread. For a filling use chopped hard cooked eggs mixed with mayonnaise, chopped green peppers, celery, or cucumbers. Add seasonings.

Eggs as a Garnish

Slices or wedges of hard cooked eggs add attractiveness to many dishes. Finely chopped whites and yolks run through a wire strainer may be used more effectively in some instances.

Foamy Brandy Sauce

3 egg yolks	2 T. sugar
½ c. cream or milk	4 T. brandy

Beat egg yolks and sugar until very light and cook over hot water for about 5 minutes. Remove from fire and add brandy.

Foamy Pudding Sauce No. 1

1 c. sugar	2 egg whites	Flavoring
½ c. butter	1 c. boiling water	

Cream the sugar and butter well, and set in pan of boiling water. Beat into mixture the two beaten egg whites. Beat well and add 1 cup of boiling water. Add flavoring desired. Serve warm.

Foamy Pudding Sauce No. 2

1 c. milk	1 c. sugar	2 egg whites
1 T. flour	1 T. butter	Flavoring
Few grains salt		

Cook together the milk, flour and salt until thickened, and cool slightly. Cream the sugar and butter and add to hot milk sauce. Beat whites of two eggs and add last. Any desired flavoring may be used. Serve warm.

Egg Sauce

1 T. flour	½ c. milk	2 eggs
1 T. butter	¼ t. salt	

Cook 2 eggs until hard. When cool, peel and cut whites very fine. Make a white sauce of the other ingredients. Add whites of eggs to sauce. Grate the yolks over sauce, or blend grated yolks with sauce.

Useful Information About Eggs

An average egg weighs about 2 ounces.

The weight of a dozen average eggs in the shell is 1½ pounds.

About eight average eggs in the shell weigh 1 pound.

About ten average eggs without shells weigh 1 pound.

One cupful of egg whites equals eight to ten whites.

One cupful of egg yolks equals sixteen to eighteen yolks.